AMENDMENTS TO THE CLAIMS

Please cancel claims 42, 44, 47, 48, 50-56, 58, and 62-65 without prejudice or disclaimer of the subject matter set forth therein.

This listing of claims will replace all prior versions and listings of claims in the application:

Listing of claims:

1-24. (canceled).

25. (previously presented) *Saccharomyces cerevisiae* strains selected from the group consisting of H1791 (VTT C-98298, DSM 12213), H1795 (VTT C-98300, DSM 12214), H1803 (VTT C-98302, DSM 12215), H2193 (VTT C-99317, DSM 12722), H2195 (VTT C-99320, DSM 12723) and H2222 (VTT C-99322, DSM 12724).

26. (previously presented) *Schizosaccharomyces pombe* strains selected from the group consisting of H2369 (VTT C-99323, DSM 12725) and H2370 (VTT C-99324, DSM 12726).

27-41. (canceled)

42. (canceled).

43. (currently amended) A method for ~~improving~~ increasing yield of a product from a production process,

wherein said product is produced in a microorganism ~~cell~~ wherein the production process normally results in either or both of (1) a depletion in the amount of ~~at least one~~ either or both of NAD and NADPH cofactors and (2) an increase in the amount of either or both of NADH and NADP cofactors,

wherein said method comprises culturing a microorganism transformed with one or more polynucleotides that encode ~~express a protein~~ an enzyme,

wherein said ~~protein~~ enzyme oxidizes one or more of NADH and NADPH or said ~~protein~~ enzyme reduces one or more of NAD and NADP thereby obtaining an increase in the yield of said product compared to the yield of the process using the untransformed microorganism and

wherein said one or more polynucleotides comprise a polynucleotide that encodes ~~a protein~~ an enzyme selected from the group consisting of glutamate dehydrogenase, malic enzyme, aldehyde dehydrogenase, ~~alcohol dehydrogenase,~~ malate dehydrogenase, glycerol-3-phosphate dehydrogenase, xylose-1-dehydrogenase, glyceraldehyde-3-phosphate dehydrogenase, orotate reductase, and ferredoxin reductase

and wherein said product is selected from the group consisting of ethanol, xylitol, lysine, alanine, cysteine,

aspartate, asparagine, glycine, isoleucine, leucine, methionine, proline, arginine, serine, threonine, valine, tryptophan and polyhydroxybutyrate.

44. (canceled).

45. (Previously presented) The method of claim 43, wherein the product is produced in an amount that is at least 5 % higher than the amount produced in the process using a corresponding untransformed microorganism under the same conditions.

46. (Previously presented) The method of claim 43 wherein the product is produced from carbohydrate.

47-48. (canceled).

49. (Previously presented) The method of claim 43, wherein the microorganism is a yeast cell.

50-56. (canceled).

57. (currently amended) A method for ~~improving~~ increasing the yield of ~~an industrial~~ a product or the specific rate of production of ~~an industrial~~ a product or both in a production

process wherein said ~~industrial~~ product is produced by a microorganism ~~cell~~ wherein the production process normally results in either or both of a depletion in the amount of ~~at least one of~~ either or both of NAD~~, NADH, NADP, and~~ NADPH cofactors and an increase in the amount of either or both of NADH and NADP cofactors, wherein said method comprises culturing a microorganism transformed with one or more nucleic acids to encode ~~express~~ one or more enzymes that catalyze one or more steps in one of the following cyclic series of reactions cycle 1 or cycle 2:

cycle 1:

Enzyme 1: $NADH + S \leftrightarrow SH_2 + NAD$

Enzyme 2: $NADP + SH_2 \leftrightarrow S + NADPH$

wherein S and SH_2 are, respectively, the oxidized and reduced substrates of Enzyme 1 and Enzyme 2, which are both dehydrogenases

or cycle 2:

Enzyme 3: $NADH + S \leftrightarrow SH_2 + NAD$

Enzyme 4: $SH_2 + X \leftrightarrow Y + ZH_2$

Enzyme 5: $NADP + ZH_2 \leftrightarrow S + NADPH$

wherein S and SH_2 are, respectively the oxidized and reduced substrates of Enzyme 3, which is a dehydrogenase; SH_2, X, Y and ZH_2 are substrates of Enzyme 4, which is not a dehydrogenase; and

ZH_2 and S are, respectively, reduced and oxidized substrates of Enzyme 5, which is a dehydrogenase.

58. (canceled).

59. (currently amended) The method according to ~~claim 58~~claim 57, wherein the dehydrogenases are selected from the group consisting of malic enzyme, glutamate dehydrogenase, aldehyde dehydrogenase, alcohol dehydrogenase, malate dehydrogenase, glycerol-3-phosphate dehydrogenase, xylose-1-dehydrogenase, glyceraldehyde-3-phosphate dehydrogenase, orotate reductase, and ferredoxin reductase.

60. (currently amended) The method according to claim 57, wherein the ~~industrial~~ product is ethanol.

61. (currently amended) The method according to ~~claim 58~~claim 43, wherein the ~~industrial~~ product is ethanol.

62-65. (canceled).

Please add the following new claims:

66. (new) The method of claim 57, wherein the product is selected from the group consisting of ethanol, xylitol, lysine,

alanine, cysteine, aspartate, asparagine, glycine, isoleucine, leucine, methionine, proline, arginine, serine, threonine, valine, tryptophan, and polyhydroxybutyrate.

67. (new) The method of claim 57, wherein the microorganism is a yeast.

68. (new) The method of claim 57, wherein the product is produced from carbohydrate.